# Transportation Asset Management International Scanning Tour

**Australia – Brisbane, Queensland – Monday, April 18 and Tuesday April 19**

**Queensland Main Roads**

*Background*
http://www.mainroads.qld.gov.au/ (homepage)

Strategic Plan 2004-2009
http://www.mainroads.qld.gov.au/MRWEB/Prod/Content.nsf/15aedf5de67c9f224a256a1
60009f2f0/f4c57494a0c221604a256f8700184a9c/$FILE/Strategic%20Plan%202004%20
-%202009.pdf

*Presentations*

Overview - Jon Krause – Executive Director (Strategic Directions*)*
Organization Framework for Asset Management within an Agency – Road System
Manager - David Bobberman (Project Management Service)

Processes in Qld Main Roads - Neil Robertson (Road Asset management Systems),

RIP – Roads Implementation Program – Decision Making Framework -Alex Pelevin,
Director, Program Development – Roads Program Division

Asset valuation  - Andrew Golding (Asset Management Strategy and Performance)

SCENARIO Millennium Overview - Neil Robertson

Tools: Bridge Asset management Systems (BAMS) - Peter Graham, Principal Engineer
Bridge Asset Management

Road Condition Data collection - Andrew Gooding

Communication/ Performance measurement - David Tighe - Network Policy and
Performance

*Observations*

Facts:
- Queensland is 2 ½ times the size of Texas
- 2.5 million people – decentralized
- Growing 2.3 % pa – 1% higher than national average with growth focused in the
  southeast.
- Average 4% pa economic growth.
- Low tax state.

- Main Roads is the owner and manager of the state controlled network - 34,000 km, 20% of the total network (other 80% is local government)
- 2740 Bridges, 20,000 major culverts
- Assets are valued at $A 27b
- Budget is $A 1.4 b
- A holding company of the Queensland Main Roads is responsible for the toll facilities.
- Queensland Main Roads (QMR) is responsible for strategic directions, provision of facilities, construction, and maintenance. Maintenance is accomplished through a three way split between day labor, local government, and the private sector.

Challenges
- Address growth and manage existing assets.
- Managing people as there is a significant shortage of technical people as well as operators.
- Need to balance the effort. There has also be an under-investment in utilities and rail so that will add to the competition.

The Roadway System Management (RSM) Framework evolved for the Austroads 7-phase approach to asset management. The RSM Framework is described as "*the Strategic Framework for Road System Asset management provides a consistent state-wide understanding of how we conduct our business as a Road System Manager.*"

The decision-making strategy is supported by various tools and data including:
- Road Implementation Program (RIP)
  - Annual  (guidelines from head office for districts as bottom up process)
  - Five year rolling program (1-2 firm)
  - Two stage evaluation press
  - Balance competing priorities of economic, trade and regional development, consistent with social justice, safety and environment justice.
- ARMIS – Road Management Information System (1989 in-house – next generation under consideration
- SCENARIO – Millennium
  - Assists in programming maintenance treatments
  - Selects treatments based on rules and conditions
  - Calculates costs and benefits
  - Makes segment optimal treatment selection
  - Predicts the future.
- HDM-4
- Asset valuation [1]
- BAMS – Bridge Asset Management Systems (BAMS)

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[1] QMR values assets based on actual condition. This strategy was arrived at in cooperation with the accountants who understood that QMR has the data to support a realistic valuation rather than a depreciated cost.

- o Builds on ARIMIS
- o Focuses on defects rather than strategic decisions
- o WhichBridge supports maintenance prioritization using
    - Relative risk (subjective)
    - Risk index

QMR also supports the use of Asset management in local government through the Roads Alliance.
- 15 regional road groups – 15-18 members (local governments or MR district)
- Local Roads of Regional Significance (LARS) road networks – state +local - ~35,000 km of roads
- Another cultural change journey
- 05/06 RIP will include the LARS program
- Road and Bridge Management Alliance Kit (Mike to get copy)
- MR defined minimum dataset and identified a register of capable systems (18 supplies offered 36 systems). Define generic decision support level (see the PM conference proceedings).
    - o Inventory + business rules
    - o Life cycle modeling but not user impacts
    - o Triple bottom line – economic, social, environmental impact
- Moving towards systematic process focused on maintenance/ preservation

## Translink – SE Busway

*Background*
http://www.transport.qld.gov.au/busways
http://www.transport.qld.gov.au/qt/PubTrans.nsf/index/Translink

*Presentations*

Overview of System – Jurgen Pasieczny – Manager Busways

*Observations*

The teamed toured the SouthEast busway and operations.
The busway is 16 km of bus only operations opened in 2001. At the end of the financial year management of the road asset will be transferred to Queensland Main Roads. This includes monitoring and planning of pavement, structures, drainage and walls. ITS, communications and surveillance will stay within Translink. This includes the SCADA systems for tunnels and stations.

## Brisbane City Council

*Background*
http://www.brisbane.qld.gov.au/

*Presentations*

Oveview - David Bell

Transport Strategies for Brisbane –  George
BCC's Asset Management – An Overview –David Cox, Principal Asset Manager and Paul Cotton
Pavement Asset Management – An Overview – Bruce Hansen, Principal Engineer, Strategic Infrastructure Management
Structural Asset Management – Critical Links in the Network – Russell Hoskin

*Observations*

Facts
- Brisbane is the largest local government in the Southern Hemisphere
- 900,000 + residents
- 8,000 + employees
- Budget $A1.6b
- Assets $A14b
- Uses a purchaser / provider model
- 5436 km of roads

Asset management has a formal organizational structure including an asset steering committee. Two systems support the decision making process
- Strategic policy and planning – Total Asset Management (TAM)
  - Asset planning tool including capital investment, strategic and operations, maintenance and disposal
  - Defines 16 classes of assets
  - Variable planning horizons (annual, 10+ years, 30+ years)
  - Includes life cycle costing and risk.
- Data System - ELLIPSE

These systems are supported by a pavement management system.

**Pictures**



Jon Krause, Executive Director Queensland Main Roads explains a point while Paul Wells takes notes.



Andrew Golding and Neil Robertson describe QMR's asset management tools



SouthEast Busway

David Bell, Brisbane City Council provides an overview



Mike Meyer, Lacy Love and Dennis Merida listen to presentation from Brisbane City Council

**NOTE: This is a "WORK-IN-PROGRESS." Please treat it as such and do not quote or attribute without permission from the Scan Team.**